

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010632**Date Inspected:** 24-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	An Qin Xiang, Yu Dong Ping.			<b>CWI Present:</b>	<b>Yes</b>	<b>No</b>	
<b>Inspected CWI report:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Rod Oven in Use:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Electrode to specification:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Weld Procedures Followed:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Qualified Welders:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Verified Joint Fit-up:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Approved Drawings:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Approved WPS:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
				<b>Delayed / Cancelled:</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
<b>Bridge No:</b>	34-0006			<b>Component:</b>	Tower Components		

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Amit K. Juvekar, was present during the times noted above for observations relative to the work being performed.

This QA Inspector observed the following work in progress:

Bay 11, East Tower, Lift 5, Skin C.

SAW welding of weld joint ESD1-TL5-2C/F-8B; located on Bay 11, East tower. Welders are identified as 042195; ZPMC Quality Control Inspector (QC) is identified as An Qin Xiang. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-3221-B-U3C-S-1.

Bay 11, East Tower, Lift 4, C/D Corner Seam.

FCAW Repair welding of weld joint ESTL4-2B/L-57A(WRR # T-WR2702); located on Bay 11, East Tower. Welders are identified as 053316; ZPMC Quality Control Inspector (QC) is identified as Yu Dong Ping. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-345-FCAW-2G(2F)-REPAIR.

Bay 11, South Tower, Struts.

SMAW welding of weld joint SD1-A6002-8-14, 13; located on Bay 11, South Tower. Welders are identified as 040690; ZPMC Quality Control Inspector (QC) is identified as Yu Dong Ping. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2112.

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Bay 10, North Tower, Interior Splice Plate.

FCAW welding of weld joint NSD1-SPSA4-24-4B; located on Bay 10, North Tower. Welders are identified as 040261; ZPMC Quality Control Inspector (QC) is identified as Gong Liang Zhong. The welding variables recorded by Quality Control Inspector (QC) appeared to comply with the Applicable WPS: WPS-B-T-2112.

Bay 10, North Tower, Lift 4, Temporary Attachment Area.

During random visual inspection at North Tower, Lift 4(Temporary Attachment Area near 116M Double Diaphragm at Corner Seam C/D) this Caltrans Quality Assurance (QA) Inspector observed “Crack Like” indications at the removed Temporary attachment Weld area. The indications were shown to ZPMC and ABF QC Inspectors. No Incident Report has been written on this issue. The attached photographs provide additional detail.

This QA Inspector carried out NDE on following

Bay 11, Tower Skirt Bracing.

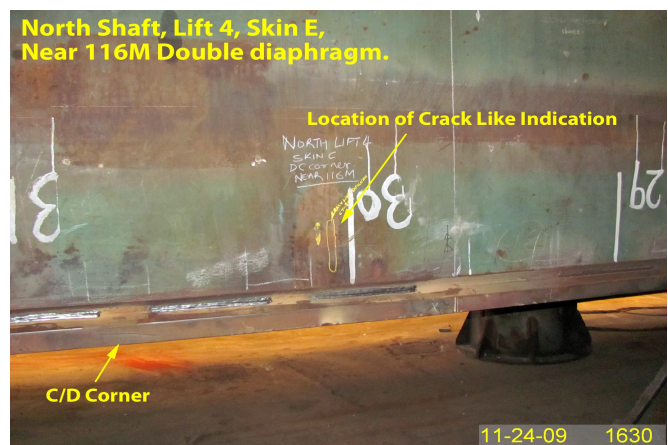
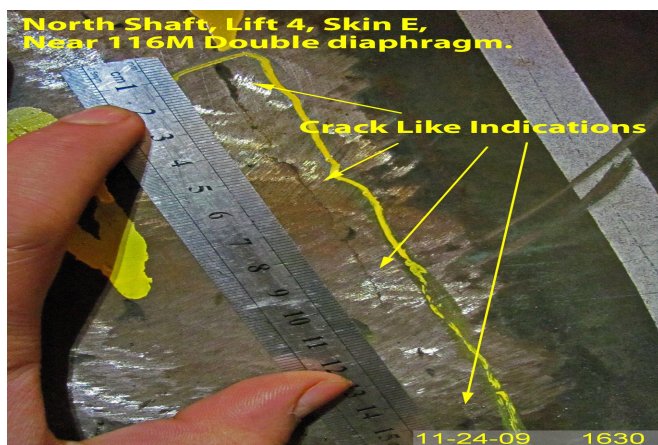
This QA inspector performs Random Visual Testing (VT), Magnetic Particle Testing (MT) of approximately 15% area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report (TL-6028) for this date. The members are identified as

- 1) ESD1-A61A/B-1-81, 82.
- 2) ESD1-A61A/B-2-81, 82.
- 3) ESD1-A63B/D-3, 4, 28, 7 to 14.

During random Magnetic Particle Testing (MT) of Skirt Plate ESD1-A63B/D the Quality Assurance Inspector (QA) observed linear indications at fillet weld joint ESD1-A63B/D-13. ZPMC provided the NDT Notification Sheet #004725 informing Caltrans QA that they have completed their NDT requirements. This indication was discovered outside of ZPMC personnel’s testing area. This Quality Assurance Inspector (QA) also written Incident report on this issue.

There were Three(3) more items on this NDE notification (Notification # 004725). ZPMC had not covered thier NDE percentage on those items. Those items not been Inspected.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



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### Summary of Conversations:

No relevant conversations.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod, 13482570045, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Juvekar,Amit	Quality Assurance Inspector
<b>Reviewed By:</b>	Clifford,William	QA Reviewer

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